

REMARKS

Claim Objections

The objection to claims 21 and 23 for indefiniteness is overcome by the instant amendment to claim 21. Specifically, the claim has been amended, *inter alia*, to resolve the ambiguity pointed out by the Examiner.

Claim Rejections

The claims have been rejected as obvious over Kelley in view of Allelyunas. Applicants respectfully traverse this rejection and beg for reconsideration in view of the remarks set out below.

It is well known that in frequency space, a digital-to-analog converter (DAC) produces a series of images of an input signal, spaced at intervals of one-half the sampling frequency of the DAC. This behavior can be described in terms of a series of successive, contiguous "zones" repeated along the frequency axis, each having a width of one-half the sampling frequency. An input signal having a frequency lying within a bandwidth of one-half the sampling frequency will have an image in each zone.

The current amendment limits the claims to a method or apparatus in which multiple digital input signals are accepted, and resulting analog signal images are selected for transmission. Importantly, at least two images must be selected from different zones, and must originate from different digital input signals.

This feature is supported in the Specification, among other places, at page 6, lines 23-26, page 8, lines 10-18, and page 14, lines 2-7.

The cited references do not teach, or even suggest, selecting signals from different zones for transmission. Instead, Kelley and Allelyunas contemplate only selecting signals from a single zone for transmission. In Kelley, for example, Figure 3 shows a bandpass filter 32 which operates on the output of DAC 26. Figure 5 of Kelley shows the operation, in frequency space, of the bandpass filter 32. As shown in Figure 5, filter 32 selects one specific image, namely image

50n, of the input signals 42, 44, 46, 48. It will be clear from the figure that precisely one "zone" is being selected by filter 32. Thus, even though a plurality of images has been selected for transmission, all of those images lie in the same zone. This interpretation is supported by the Kelley specification at column 6, lines 2-11, which explains that "filter 32 is constructed around the transmission band at which the multiple simultaneous transmission signals are desired . . . so that only the desired aliased image spectra remain." *Id.*

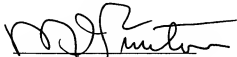
Alalyunas provides an example at column 4, lines 52-60, which is illustrative. In the example, a DAC produces analog signal images centered at -140, -100, . . . , -20, 20, 60, . . . , 140, . . . MHz. A passband filter of bandwidth 35 MHz centered at 140 MHz selects the image in precisely one zone for further processing.

Because neither of the cited references provides any teaching or suggestion to select signal images for transmission from different zones, Applicants submit that the claims are patentable over the cited references under the standard of 35 USC 103.

Conclusion

Having responded to all points of objection and rejection, Applicants respectfully solicit allowance of all claims now pending in the application.

Respectfully,



Martin I. Finston, Attorney
Reg. No. 31613
973-386-3147

Date: **February 1, 2005**

Docket Administrator (Room 3J-219)
Lucent Technologies Inc.
101 Crawfords Corner Road
Holmdel, NJ 07733-3030